

Date: Tue, 23 Mar 93 17:30:07 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #368
To: Info-Hams

Info-Hams Digest Tue, 23 Mar 93 Volume 93 : Issue 368

Today's Topics:

20 ma Current loop specs
Ailtech 727 - recommended source for alignment?
Alinco DJ-580. IC Upgrade?
Armstrong/DeForest regenerative receiver
Autopatch
CLOVER Information
Connectors for HP-95 computer
Motorola Mics
Offset to UTC calculation?
past postings about Yaesu ft-530?
Please remove mmelling@trirex.com from mail list
problems with bad mailing addr for hams? (2 msgs)
Real NoCodes
Sign me up for INFO-HAMS

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Wed, 24 Mar 1993 00:18:07 GMT
From: swrinde!gatech!kd4nc!ke4zv!gary@network.UCSD.EDU
Subject: 20 ma Current loop specs
To: info-hams@ucsd.edu

In article <C4Ar8C.K8E@eskimo.com> mann@eskimo.com (Tom Mann) writes:
>Well, no one gave me a circuit for interfacing RS-232 to 20 ma current loop
>so it looks like I have to design my own. Can anyone tell me what 20 ma current
>loop 'looks' (voltage level, impedance, etc) like?

Well a current loop is exactly what it sounds like. There's a constant current source set for 20 ma. Whatever voltage is necessary to force 20 ma around the loop will be the loop voltage. The impedance of the loop is whatever it is. It's not unusual to see as much as 170 volts on the loop. Yes it does bite. Typically for short loops inside the computer room, loop voltage rarely exceeds 12 volts, but for long loops the voltage can be quite high. Most any 3 terminal regulator can be configured as a constant current source, see the data sheets for details. If you're driving a loop several miles long, special current sources may be required. In the old days, a polar relay was used as the switching element in current loops, and loop current was typically 60 ma. It could hurt you severely. Today we use an optoisolator to convert the current to TTL levels, and a healthy switch transistor to switch the loop. By convention, mark is closed loop and space is open loop, but some systems are reversed to prevent machinery from chattering when run open.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: Tue, 23 Mar 1993 18:03:34 GMT
From: sdd.hp.com!zaphod.mps.ohio-state.edu!magnus.acs.ohio-state.edu!csn!cherokee!
da_vinci!lookout.it.uswc.uswest.com!dfeldman@network.UCSD.EDU
Subject: Ailtech 727 - recommended source for alignment?
To: info-hams@ucsd.edu

I purchased a rather dilapidated Ailtech 727 spectrum analyzer recently. It works but needs alignment. Could anyone recommend a source to have this done? It is very large and heavy, so shipping would be another adventure altogether...
Thanx. 73 Dave WB0GAZ

Date: 23 Mar 1993 09:35:06 MST
From: ftpbox!mothost!schbbs!waccvm.corp.mot.com!R1156C@uunet.uu.net
Subject: Alinco DJ-580. IC Upgrade?
To: info-hams@ucsd.edu

Someone was selling a 580 with 'the latest IC upgrade'....

What gives? This is the first I've heard of it... What is this infamous upgrade?

Please email...

Michael R. Dow
N1JCX
R1156C@Waccvm.corp.mot.com

Date: 23 Mar 93 20:46:12 GMT
From: usc!zaphod.mps.ohio-state.edu!moe.ksu.ksu.edu!cis.ksu.edu!
mac@network.UCSD.EDU
Subject: Armstrong/DeForest regenerative receiver
To: info-hams@ucsd.edu

jtg0707@uxa.cso.uiuc.edu (Jui Tien) writes:
>A long time ago, I came across a schematic of a transistor version of the
>Armstrong/DeForest receiver.
>I have since lost the schematic. Does anyone out there know or remember where
>I can get a copy of it?
>I prefer the transistor version since parts are readily available (and cheaper
>than the tube version)

Improved Transistor Regenerator; Radio Electronics, November 1955.
Regenerative Transistor Receiver; Radio & TV News, October 1956.
The "GCR-2" Receiver; QST, June 1968.
An FET Regenerative Receiver for 3.5 mhz and Up; 73 Magazine, August 1969.
A Solid State High Freq. Regenerative Receiver; 73 Magazine, February 1972.
Antennaless 1-Tube Regen Receiver; Electronics Hobbyist/Spring-Summer 1976.
BGNRS FET IC BCB AM RCVR; Electronics Hobbyist/Spring-Summer 1976.
Kit Corner: Built a Two-Tube Vintage Receiver; 73 Amateur Radio, Sept. 1986.
A 1935 Ham Receiver; QST, Sept. 1986.
One-Tube Receiver for Experimenters; Monitoring Times, April 1989.
Build a Simple Regen. Rec. for the BC Band; Monitoring Times, January 1992.

I have some more somewhere, but I seem to have misplaced the folder.

--Myron.

--

We preserve our freedoms using four boxes: soap, ballot, jury, and cartridge.
Myron A. Calhoun, PhD EE; Assoc. Professor (913) 539-4448 home
INTERNET: mac@cis.ksu.edu (129.130.10.5) 532-6350 work, 532-7353 fax
UUCP: ...rutgers!depot!mac Packet-BBS: WOPBV @ KOVAY.#NEKS.KS.USA.NAOM

Date: Tue, 23 Mar 1993 22:57:25 GMT
From: usc!howland.reston.ans.net!newsserver.jvnc.net!stevens-tech.edu!
vaxc.stevens-tech.edu!u95_dgold@network.UCSD.EDU
Subject: Autopatch
To: info-hams@ucsd.edu

I have designed and built a cross band telephone autopatch system; The output is on 2m and the input is on 70cm. I would like to know if it would be in compliance with FCC rules to operate this system without a CW id on the output after each call.

-dave
N2MXX

Date: Tue, 23 Mar 1993 22:01:28 GMT
From: swrinde!zaphod.mps.ohio-state.edu!darwin.sura.net!gatekeeper.es.dupont.com!
esds01.es.dupont.com!COLLINST%esvx19.es.dupont.com@network.UCSD.EDU
Subject: CLOVER Information
To: info-hams@ucsd.edu

Can someone point me to a FTP site or BBS with
some Intro Info for CLOVER?

=====
|73, Thomas Collins WI3P |
|(wi3p.ampr.org [44.66.0.2] New Castle, Delaware) |
| |
|collinst@esvax.dnet.dupont.com or collinst@holonet.net |
| |
|*** The comments, opinions, belief, sentiment, views & scribblings **|

Date: Wed, 24 Mar 1993 00:01:56 GMT
From: netcomsv!netcom.com!duncan@decwrl.dec.com
Subject: Connectors for HP-95 computer
To: info-hams@ucsd.edu

In article <9303170021.aa24325@AED.PICA.ARMY.MIL>, sidb@pica.army.mil (Sid B. Bernstein, AED-EWD) writes:

> Hi,
> Crossposted to info-mac/hams.
>
>
> Does anybody have a source for the 4 pin connector that is used on

> the HP-95 hand held computer? Or a cable with the connector attached?
>
> Please answer to me directly as I am behind in reading the bulletins.
>
>
> thanx/73,
> sid/WB2TNO
> sidb@pica.army.mil
>

If that is the same as the HP48 connector then you can scrounge one from a dead floppy drive. You should be able to pick one up for a couple of bucks at your local electronics flea market. I believe a similar connector is used for either the heads or the motor - can't remember which - that's where I got one at any rate. It is NOT on .1 inch grid but rather (I would estimate) 2mm. Otherwise pay the \$50 HP is asking.

--
duncan@zycad.com (Donald Duncan)

Date: Tue, 23 Mar 1993 21:46:24 GMT
From: swrinde!zaphod.mps.ohio-state.edu!howland.reston.ans.net!gatech!concert!
samba!usenet@network.UCSD.EDU
Subject: Motorola Mics
To: info-hams@ucsd.edu

I recently picked up a couple of Motorola microphones (land mobile) that I'd like to use for ham and other (non-Motorola) land mobile stuff.

The two I picked up are:

HMN1038A - This is a desk mic, with a Tx button and a monitor button.
HMN1035A - Standard mobile mic, nothing fancy

Both mics have 8 conductor modular jacks (similar to telephone), with only 5 or 6 wires used.

The info I'm looking for:

Pinouts of the wires on each mic, and the impedance of the two mics.
Any info would be most appreciated!

-ks, KD6RCT

--

The opinions expressed are not necessarily those of the University of North Carolina at Chapel Hill, the Campus Office for Information Technology, or the Experimental Bulletin Board Service.
internet: laUNCHpad.unc.edu or 152.2.22.80

Date: 23 Mar 93 21:57:41 GMT
From: arizona.edu!zippy.telcom.arizona.edu!navvax.ucc.nau.edu!cvm@arizona.edu
Subject: Offset to UTC calculation?
To: info-hams@ucsd.edu

How can I determine the offset to UTC at my location? I live in Flagstaff, Arizona which is 111 39 02 N and 35 11 53 W according to the geographic name server at the University of Michigan.

Chris Michels -- Systems Programmer cvm@navvax.ucc.nau.edu
Northern Arizona University -- Flagstaff, AZ cvm@navvax.bitnet
Phone: (602) 523-6495 N7YIU

Date: 23 Mar 93 17:53:22 GMT
From: usc!cs.utexas.edu!utnut!torn!nott!bnrgate!bnr.co.uk!zaphod.axion.bt.co.uk!marble.uknet.ac.uk!uknet!acorn!agodwin@network.UCSD.EDU
Subject: past postings about Yaesu ft-530?
To: info-hams@ucsd.edu

In article <jfhC4BDBu.7Cr@netcom.com> jfh@netcom.com (Jack Hamilton) writes:

>
>2) I may be in Europe later this year. Can I somehow transmit the 1750 Hz
> tone-burst used by European repeaters?
>
>They have mods for lots of other radios to do this, but not for the FT-530.
>

You can always do it the way owners of ex-commercial gear do : whistle !

It isn't necessary to have perfect pitch, or be capable of whistling an undistorted sine - I have a good success rate by whistling a rising tone for about 5 seconds.

Alternatively, just wait for someone else to access the repeater - on UK repeaters at least, you don't need a toneburst on every over, just an initial squawk to get it on the air. Some will now also respond to CTCSS.

-adrian

--

Adrian Godwin : agodwin@acorn.co.uk : adrian@fangorn.demon.co.uk : g7hwn@gb7khw
ObDisclaimer : I believe this rubbish .. don't imagine that anyone else does.

Date: 23 Mar 93 20:21:17 GMT
From: news-mail-gateway@ucsd.edu
Subject: Please remove mmelling@trirex.com from mail list
To: info-hams@ucsd.edu

Please remove mmelling@trirex.com or michael_mellinger@trirex.com from your mail alias.

thanks
mark

Mark LeScoezec
System Administrator
Trirex Systems, Inc.
315 Post Road West
Westport, CT 06880
(203)221-4600 X625
ml@trirex.com
NeXTmail okay

Date: 23 Mar 93 19:13:23 GMT
From: usc!zaphod.mps.ohio-state.edu!uwm.edu!logicse!flop.ENG.RST.EDU!
gaia.ucs.orst.edu!sequent!muncher.sequent.com!dale@network.UCSD.EDU
Subject: problems with bad mailing addr for hams?
To: info-hams@ucsd.edu

I am curious as to just what problems having a bad mailing address on your ham license can cause (U.S. hams). I was told once that if the FCC sent you something and it came back to them with a bad address they would "cancel" your license? Is this true? I'm sure we have all had QSL cards come back showing that the address is no longer valid. Recently I sent out some mailings to local club members and had a couple of those come back showing that the callbook address was no longer valid. I would like to know just how important the FCC considers this. I know they *want* the information, but the question is -- what is the penalty for not keeping it up-to-date?

73, Dale.

--

dale@sequent.com OR uunet!sequent!dale
Dale Mosby 503-578-9842 N7PEX // Sequent Computer Systems, Inc.
15450 SW Koll Parkway // Beaverton, Or. 97006-6063

Date: Wed, 24 Mar 1993 00:21:52 GMT
From: swrinde!gatech!kd4nc!ke4zv!gary@network.UCSD.EDU
Subject: problems with bad mailing addr for hams?
To: info-hams@ucsd.edu

In article <1993Mar23.191323.641@sequent.com> dale@sequent.com (Dale Mosby) writes:

>I am curious as to just what problems having a bad mailing address on
>your ham license can cause (U.S. hams). I was told once that if the
>FCC sent you something and it came back to them with a bad address they
>would "cancel" your license? Is this true? I'm sure we have all had
>QSL cards come back showing that the address is no longer valid.
>Recently I sent out some mailings to local club members and had a
>couple of those come back showing that the callbook address was no
>longer valid. I would like to know just how important the FCC
>considers this. I know they *want* the information, but the question
>is -- what is the penalty for not keeping it up-to-date?

If you receive a notice of apparant liability, you have X days to respond, I think it's 10, but it may be 30. Anyway, failure to respond is *another* violation. So in addition to mounting fines as the mail ping-pongs, you could have your license revoked. Send in that change of address on a 610, or maintain a PO box that you check regularly for official notices.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: 23 Mar 93 19:48:13 GMT
From: usc!zaphod.mps.ohio-state.edu!uwm.edu!logicse!usenet.ee.pdx.edu!
fastrac.llnl.gov!lll-winken.llnl.gov!nirvana.llnl.gov!user@network.UCSD.EDU
Subject: Real NoCodes

To: info-hams@ucsd.edu

In article <1993Mar20.024756.22555@anomaly.sbs.com>, ka1ftw@anomaly.sbs.com wrote:

>
>

Bunch of other crap deleted.....

> Anyone else have any horror stories out there ????

>

> I and other Ham's have been working with O.O's in two States and found that 98% of Jamming ect...

> to be No-Codes.

> One even got caught on their Local Police Frequency.

> And just got caught again jamming two repeaters.(good ham huh ????)

>

> THIS DOES NOT PROMOTE GOOD PUBLIC RELATIONS DOES IT ?????

>

As a new Tech Class licensee I personally resent your insults and waste of bandwidth. I have had nothing but friendly support from all the folks on the repeaters in my area, sure glad I don't live anywhere near you.

Get a life.

Jerk.

Dave Parker

davep@llnl.gov

KD6RRS

Date: 23 Mar 93 22:15:05 GMT

From: news-mail-gateway@ucsd.edu

Subject: Sign me up for INFO-HAMS

To: info-hams@ucsd.edu

Please add me to the info-hams mailing list. The address is:

titelbaumd@gw1.hanscom.af.mil

Thxs.

Signed,

A future (when I take the dam-test) Tech

aka David Titelbaum
Network Resource Manager
ESC/YV Computer Support
Hanscom AFB, MA 01731-2123

617-377-7362
DSN 478-7362

Date: Tue, 23 Mar 1993 20:40:03 GMT
From: usc!howland.reston.ans.net!news.ans.net!newsgate.watson.ibm.com!
yktnews.watson.ibm.com!uri@network.UCSD.EDU
To: info-hams@ucsd.edu

References <POPOVICH.93Mar19054906@morningside.cs.columbia.edu>,
<1odd85INN3b7@gerald.cc.utexas.edu>, <1545@mwuk.UUCP>
Reply-To : uri@watson.ibm.com
Subject : Re: CW timing and rare char.

In article <1545@mwuk.UUCP>, tony@microware.co.uk (Tony Mountifield) writes:
|> I believe ---. is already defined as the German o" (o umlaut).

Cyrillic "Tch".
|> For completeness, .-.- is a", and ..-- is u" (again, German).

Cyrillic "Ya" and "Yu".

|> I also heard once the ---- is a "ch" symbol, but don't know what language.

CYrillic "sh".

|> What other exotic letters are defined?

If memory serves me - Cyrillic "ae" (like in "bad"): ..-.. (but
wasn't really used too often, I think).

And of course, a lot of the "standard" 26 letters are assigned
differently (ex. ...- is "zh")...

--

Regards,

Uri. uri@watson.ibm.com scifi!angmar!uri

<Disclaimer>

Date: 24 Mar 1993 01:08:03 GMT
From: usc!elroy.jpl.nasa.gov!oak!laborde@network.UCSD.EDU
To: info-hams@ucsd.edu

References <1993Mar20.024756.22555@anomaly.sbs.com>,
<23MAR199306372347@nssdca.gsfc.nasa.gov>,
<1993Mar23.152028.2735@cbnewsm.cb.att.com>
Subject : Re: Real NoCodes

In article <1993Mar23.152028.2735@cbnewsm.cb.att.com> jeffj@cbnewsm.cb.att.com
(jeffrey.n.jones) writes:

>
>The drawback to all this Nocode license change
>is more people will get their licenses and hence more problems.

Of course that Jammer could not have been unlicensed, could he have? No, of course not, he must have been a Technician. Just like the guy who got busted last month on 20 m was really a no-coded Advanced, right?

>I am sure that it
>was one of those guys due to other things that have been occuring lately.
>I think that one of them bought or stole a HT, couldn't pass the test due
>to his low IQ and started causing problems.

Of course if there was not a no-code license, then this guy would not have felt inferior to measly, lowly no-codes and been driven to malevolent behaviour. He would have understood that the ability to decode those strange noises is an ability limited to very few superhumans and not felt bad at all.

What strange logic exists in this newsgroup...

-grl.

Date: Tue, 23 Mar 1993 21:11:50 GMT
From: usc!howland.reston.ans.net!gatech!wa4mei!ke4zv!gary@network.UCSD.EDU
To: info-hams@ucsd.edu

References 49.CST".*.Mike_Beezley.houstoncssc@Xerox.com>,
<1oake0INNgt8@topaz.bds.com>, <1993Mar23.114025.14874@qualcomm.com>

Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Re: White House To Auction Airwaves

In article <1993Mar23.114025.14874@qualcomm.com> karn@servo.qualcomm.com writes:
>In article <1oake0INNGt8@topaz.bds.com>, ron@topaz.bds.com (Ron Natalie) writes:
>|> I don't know about auction, but charging some of the more lucrative services
>|> wouldn't be a bad idea. A cellular franchise is like a license to print
money,
>|> as are many of the broadcast outlets. There is essentially zip paid by the
>|> licensees for the privelege.
>
>Don't forget who will end up paying this extra tax. Even if you aren't
>a cell phone user, you'll pay indirectly...

You're right Phil, despite soak the rich rhetoric, every cost is ultimately borne by a retail purchaser. I'd also note that many smaller radio stations are going bankrupt, and even a few UHF TV stations. In fact, broadcast earnings industry wide are down sharply, and for the first time a VHF network affiliate has gone dark. Layoffs and pay cuts averaging 35% are an industry wide trend. Times are grim in the broadcast business too. Cable and VCRs have grabbed the audience, and they aren't going to give it back as long as broadcasters are hamstrung by content regulations that prevent a competitive response. News is all that's left to broadcast, and there just isn't that much news. Thus the infotainment program, bleech.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: Wed, 24 Mar 1993 00:07:32 GMT
From: swrinde!gatech!kd4nc!ke4zv!gary@network.UCSD.EDU
To: info-hams@ucsd.edu

References <1993Mar21.023002.5207@ssc.com>, <1ohbakINNiuk@leela.CS.ORST.EDU>,
<1993Mar23.150507.24567@neptune.inf.ethz.ch>
Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Re: Nicad Memory Effect-Fact or Myth?

In article <1993Mar23.150507.24567@neptune.inf.ethz.ch> gaspar@inf.ethz.ch (gaspo) writes:
>In article <1ohbakINNiuk@leela.CS.ORST.EDU> forbesm@atlantis.CS.ORST.EDU (Mark Forbes) writes:

>>tad@ssc.com (Tad Cook) writes:

>>

>>>Do the performance of NiCad batteries suffer when they are repeatedly
>>>only slightly discharged? The story goes that one should do a deep
>

>>[nice description "from memory" deleted]

>

>>At least they would, if it weren't for the battery-life-detect circuit
>>hollering about how it's time to recharge the battery! So Joe User
>>obediently plugs in the charger, recharging the discharged parts and
>>mostly ignoring the voltage-depressed parts. And the cycle repeats.

>>

>

>so, let me see if I got this straight...

>

>1) the "battery low" alarm goes off as soon as a tiny drop in potential
> occurs.

Yes, though it's not quite **that** tiny. A loaded, fully charged NiCad has 1.2 volts per cell. A cell holds close to that voltage until it's nearly reached the end of useful charge. At that point it drops quickly. A terminal voltage of 1.0 volts per cell should be considered fully discharged. Only a slight further discharge will drop the terminal voltage **rapidly** toward zero volts.

>2) this drop is still way before the ideal "empty" state of the "stuff"

NO. **Only** if the battery is suffering from voltage depression will the terminal voltage decline to near 1.0 volts per cell before all of the cell's useful capacity is tapped, **but** the voltage will not decline further until the **real** end of useful charge is approached. At that point the voltage will **rapidly** decline toward zero with its inherent dangers of reversing a cell.

>3) re-charging at this point (before a "deep-discharge") leads to the
> "memory" problem.

Only if you do a full recharge, as if the battery were empty, rather than a partial recharge, which is all the battery needs. The voltage depression effect is caused by **overcharging** a partially full battery. It can be completely eliminated by fully discharging the pack **once** and never overcharging it excessively again. DANGER: discharging a **pack** fully is a tricky process because the weaker cells will discharge first and begin to **reverse** charge. This will almost surely damage the cells. The **correct** way is to take the pack apart and discharge each cell **individually**. Since this is a pain, you want to avoid having to deep discharge your battery as a routine practice.

It's OK, it will even extend the battery's life, if you only partially discharge the battery and only charge the battery until it's full. The voltage depression can only occur if you excessively *overcharge* a partially charged pack. Thus a charger that senses onset of full charge is mandatory if you wish to get the longest life out of your batteries. The wall cubes supplied with radios don't qualify. Most desk chargers don't qualify. The Yaesu NC-42 and a couple of aftermarket chargers do it right. There was also an article in QST featuring a microprocessor controlled charger that does it right. Basically you want a pulse charger that supplies a test load to the battery between pulses and looks for the characteristic voltage "droop" that occurs when a NiCad reaches full charge. This droop is small, only about 0.045 volt per cell, and can only be measured under load. Otherwise the "surface" charge on the cell will fool the charger. Icom chargers sense cell temperature to determine when to stop charging. That's better than timed charging, but by the time the temperature rises, the battery is already somewhat overcharged. A small overcharge is *necessary* to fully charge a battery, but the key word is *small*. If your battery becomes noticeably warm to the touch, it's overcharged. A slight warmth is normal, cells do have internal resistance. The finger test isn't reliable unless you've calibrated your finger to the particular battery.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

End of Info-Hams Digest V93 #368
